

Preparing Globally Minded Teachers Through the Incorporation of the International Baccalaureate

ANN MARIE RYAN, AMY J. HEINEKE, AND CALEB E. STEINDAM, LOYOLA UNIVERSITY CHICAGO

ABSTRACT

In this article, we describe the initiative of one university's teacher education program to incorporate the International Baccalaureate Teacher Certificate. Responding to the growing number of public and private International Baccalaureate World Schools in urban and suburban settings in our region, the program aims to prepare teachers to meet the needs of diverse learners within a rigorous and global approach to curriculum and instruction. Writing for teacher educators considering the integration of this internationally minded teaching and learning framework, we explain the redesign of our teacher preparation program that was intended to target and integrate the principles and practices of the International Baccalaureate.

INTRODUCTION

Many current educational policy debates in the United States focus on the effectiveness and classroom applicability of teacher preparation programs (Duncan, 2011; National Council on Teacher Quality, 2013). Whereas proponents of traditional and alternative paths to certification continue to critique each other's approaches to preparing teachers, some colleges of education have looked beyond this conflict and embraced the opportunity for positive change (Ball & Forzani, 2010; Ryan et al., 2014). Recognizing the need to transform the traditional approach to teacher education that has been used for the past century (Ryan et al., 2014), some university faculty are responding to organizational calls by designing partnerships with schools and community stakeholders to prepare teacher candidates through clinically embedded experiences in classrooms, schools, and community organizations (American Association of Colleges of Teacher Education [AACTE], 2010; the National Council for the Accreditation of Teacher Education [NCATE], 2010) that will equip them to meet the needs of diverse students in contemporary classrooms and schools (Heineke, Kennedy, & Lees, 2013).

The decision to redesign the teacher education program in our institution came from within, as many faculty members saw an opportunity to better prepare our candidates to make positive changes for students and target the specific realities and contexts of urban classrooms and schools (Murrell, 2000; Noel, 2010). By partnering with educational stakeholders in Chicago-area schools and communities, we collaboratively redesigned our program to a

field-based apprenticeship model (Rogoff, 1994) that embeds all teaching and learning in educational settings across a four-year undergraduate program (Heineke et al., 2013; Ryan et al., 2014). We aimed to develop candidates to be effective educators (Feiman-Nemser, 2001) with the knowledge, skills, and dispositions to positively affect students' social, emotional, cognitive, behavioral, cultural, and linguistic development—and, ultimately, their academic achievement (Heineke, Coleman, Ferrell, & Kersemeier, 2012; Herrera, 2010; Wrigley, 2000). Responding directly to the context of Chicago-area classrooms, we committed to prepare all teachers for cultural and linguistic diversity, with every candidate graduating with Illinois State Board of Education (ISBE) (2013a) endorsement as a teacher of English as a Second Language (ESL) (Heineke et al., 2013). Additionally, we designed opportunities for candidates to engage in inclusive teaching and learning with special-needs students throughout the four-year program, thereby completing two-thirds of the endorsement requirements for this work (ISBE, 2013b). To prepare teacher candidates for state and local contexts, we grounded our program in *Understanding by Design* (Wiggins & McTighe, 2005), a curriculum framework widely used in Illinois school districts, and focused on addressing the *Common Core State Standards* (Common Core State Standards Initiative, 2014) required by the Illinois State Board of Education. These curriculum initiatives are central to teaching and learning in Chicago-area schools, and we aimed to bring them into our program in a meaningful way in order to prepare our candidates to be leaders in their work with children, families, and colleagues.

In addition to preparing teachers based on local, state, and federal contexts and policies, we decided to consider the International Baccalaureate (IB), which is being incorporated into the curricula of a growing number of Chicago Public Schools (CPS) (2012). Founded in Europe in 1968, the IB Diploma Programme was originally developed for the children of diplomats who required a standardized and rigorous curriculum to demonstrate college preparedness despite having attended multiple schools. The curriculum gained traction outside this circle as early as 1980, when Lincoln Park High School adopted the first IB Diploma Programme in Chicago (Lincoln Park High School, 2013). In 1997, Paul Vallas, the chief executive officer of CPS, called for the expansion of IB Diploma Programmes into neighborhood high schools to increase curricular rigor and retain high-achieving students in schools serving low-income and minority populations (Coca, Johnson, & Kelley-Kemple, 2011). Drawing on the empirical research that confirmed the success of IB programs in CPS (Coca et al., 2011; CPS, 2012), Mayor Rahm Emanuel and CPS

Table 1. IB Programs and the Learner Profile

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Program	Primary Years Programme (PYP)	Middle Years Programme (MYP)	Diploma Programme (DP)
Age range	3–12 years	11–16 years	16–19 years
Subject Groups	<ul style="list-style-type: none">• Language• Social Studies• Mathematics• Arts• Science• Physical, Social and Personal Education	<ul style="list-style-type: none">• Language A• Language B• Humanities• Sciences• Mathematics• Arts• Physical Education• Technology	<ul style="list-style-type: none">• Language A1• Second Language• Individuals and Societies• Experimental Sciences• Mathematics and Computer Science• The Arts
Major Project/Assessment	Exhibition (teacher-guided inquiry project in area of student interest)	Personal Project (project of student's choice involving creativity, reflection, and research)	Extended Essay (independent research paper related to a DP subject)
Other key features	Transdisciplinary Themes: <ul style="list-style-type: none">• Who we are• Where we are in place and time• How we express ourselves• How the world works• How we organize ourselves• Sharing the planet	Contexts for Learning: <ul style="list-style-type: none">• Approaches to learning• Community and service• Health and social education• Environments• Human Ingenuity	<ul style="list-style-type: none">• Theory of Knowledge (cross-disciplinary course)• Creativity, Action, Service (ongoing series of activities)
Learner Profile	IB programs aim to develop students who are inquirers, thinkers, communicators, risk takers, knowledgeable, principled, caring, open-minded, well-balanced, and reflective.		
Note. Adapted from IB learner profile, by International Baccalaureate, 2013, retrieved from http://www.ibo.org/myib/digitaltoolkit/files/pdfs/learner-profile-en.pdf ; <i>The IB Diploma Programme</i> , by International Baccalaureate, 2013, retrieved from http://www.ibo.org/diploma/ ; <i>The IB Middle Years Programme</i> , by International Baccalaureate, 2013, retrieved from http://www.ibo.org/myp/ ; and <i>The IB Primary Years Programme</i> , by International Baccalaureate, 2013, retrieved from http://www.ibo.org/pypl/ .			

stakeholders expanded IB programs within these schools and in additional schools (Karp, 2012). Mayor Emanuel called the initiative “Wall-to-Wall” IB to connote the fact that all urban students, not just those enrolled in Diploma Programmes, have access to an IB education. As of 2013, CPS sponsored seven Primary Year Programmes (PYP): PreKindergarten to Grade 5 (CPS, 2013c), 31 Middle Years Programmes (MYP): Grades 6 to 10 (CPS, 2013b), and 22 Diploma Programmes (DP): Grades 11 and 12 (CPS, 2013a). Table 1 presents information about each of these programs and the IB Learner Profile, which is integral to all programs and reflects the key characteristics that the IB seeks to instill in all students. In addition to CPS, several Chicago-area private and parochial schools sought approval to offer IB programs, particularly in Catholic schools, where the mission is aligned with the desire for global solidarity (White, 2012). The concentration and expansion of the IB in Chicago is considerable, with demonstrated success primarily in neighborhood schools rather than those considered *selective*. In this way, the shift to a more rigorous and coherent curriculum for neighborhood schools has the potential to yield positive learning outcomes for all students, not only the traditional audience for the IB curriculum in gifted and advanced classes.

Familiar with the IB from our work with teachers and leaders in Chicago-area schools, we became aware of the IB Teacher Certificate as we began to redesign our program. We learned that only a

handful of graduate programs in the United States offered the certificate, and only one undergraduate program had sought approval (James & Davis, 2010). The IB curriculum resonated with us, given the fact that our university’s core curriculum emphasizes international-mindedness, encourages study abroad within short- and long-term worldwide opportunities, and sponsors international centers in Italy, China, and Vietnam. The extensive and deep presence of the IB in Chicago schools, coupled with our university’s strong international commitment, made the IB Teacher Certification compelling. Our interest was bolstered by empirical research, which indicates that the IB positively affects student achievement through critical inquiry, student agency, and instructional consistency (Rose, 2007), and that high percentages of IB students and graduates report perceived benefits, including international cultural awareness, depth and breadth of knowledge, critical thinking, time management, and communication skills (Culross & Tarver, 2011; Tarc & Beatty, 2012; Taylor & Porath, 2006). The IB core pedagogical values (i.e., enhancing teaching and learning, fostering communication and collegiality, encouraging innovation and risk taking, promoting intercultural understanding and respect, acknowledging diversity and multiple perspectives, and supporting reflection and professional learning) aligned with our approach to teacher preparation. Our efforts are grounded in professionalism in service of social justice (Cochran-Smith, 2010), social constructivist

approaches to teaching and learning (Vygotsky, 1978), and global perspectives and advocacy (Zhao, 2010). For these reasons, we seized the opportunity to integrate the IB, which became an integral part of our program and provided an important vehicle for establishing partnerships with schools.

In this article, we describe one university-based teacher education program's curricular approach to preparing teachers for IB teaching and learning contexts, and the redesign process that incorporated principles and practices of the IB. With the majority of the established IB teacher education programs in Europe and Australia (IB, 2014a), we contribute to the extant literature by specifically targeting U.S. teacher education programs and the ways the IB can extend and enhance traditional teacher preparation in a complex and dynamic educational policy context. Whereas previous papers argue the need to internationalize teacher education (Boix-Mansilla & Jackson, 2011; Council of Chief State School Officers & Asia Society, 2008; Longview Foundation, 2008; Van Roekel, 2010), we go beyond to detail the complex process of integrating these perspectives into professional practice. As more teacher education institutions and organizations recognize the need to prepare teachers for an increasingly globalized world, educators and stakeholders can learn from and utilize our experiences in re-conceptualizing and redesigning teacher education.

We begin by reviewing the literature on teacher preparation for international and global education to frame and situate our work. We then detail our program redesign for IB teacher preparation, including the use of backward design, partnership formation, and decisions regarding implementation. We close with implications and recommendations for teacher educators embarking on this contemporary and global approach to teacher preparation.

TEACHER PREPARATION FOR INTERNATIONAL AND GLOBAL EDUCATION

The Literature

Recently, educational scholars and organizations have called for internationalizing teacher education to match the rapidly changing conditions of today's *flat world* (Friedman, 2005), with its globalized economy, increased migration and travel, easier worldwide communication, and heightened awareness of our interdependence (Boix-Mansilla & Jackson, 2011; Council of Chief State School Officers & Asia Society, 2008; Longview Foundation, 2008; Van Roekel, 2010). Globalization affects human lives in powerful, often problematic ways that are inadequately addressed by our education systems (Apple, 2011; O'Connor & Zeichner, 2011; Wang, Lin, Spalding, Odell, & Klecka, 2011). The literature reports the demand for globally minded teachers (e.g., Colón-Muñiz, SooHoo, & Brignoni, 2010; Cushner, 2007; James & Davis, 2010), calls for increased internationalization of teacher education (e.g., Longview Foundation, 2008; Shaklee & Baily, 2012; Van Roekel, 2010), and describes both international and domestic possibilities for maintaining the rigor of teaching and learning in this

rapidly changing environment (e.g., Boix-Mansilla & Jackson, 2011; Council of Chief State School Officers & Asia Society, 2008; Rajdev, 2011).

Extant literature published in Europe and the United States has shown the need to prepare globally and internationally minded teachers. Studies conducted in the United Kingdom found that school actors insufficiently addressed global issues due to a lack of teacher preparation. Although students demonstrated interest in global issues, teachers expressed reluctance due to lack of confidence in subject knowledge, uncertainty about capacity for facilitating challenging discussions, and concerns about sharing personal views on controversial topics (Davies, Harber, & Yamashita, 2005; Holden & Hicks, 2007; Yamashita, 2006). In the United States, Van Roekel (2010) reported that American students had comparatively less knowledge of geography, foreign languages, and culture than students in other countries. Robbins, Francis, and Elliott (2003) found that this lack of knowledge was evident in professional practice; whereas preservice teachers agreed that global citizenship education was relevant and important, only 40% reported that their preparation included global education, and only 35% felt confident to enact international education in classrooms. Eslami (2005) determined that teachers' approaches to a specific global issue, the war in Iraq, adopted uncritical, U.S.-centered perspectives, leading the researcher to call for globally minded teacher education.

To respond to the need for international knowledge and skills in teacher education, scholars have explored both international and domestic experiences for candidates. An ample number of studies have confirmed that international experiences contribute to globally minded teachers; these include living abroad to provide *outsider* experiences (Alfaro & Quezada, 2010; Cushner, 2007; Mahon, 2007; Malewski, Sharma, & Phillion, 2012; Merryfield, 2000; Serriere, 2008; Trilokekar & Kukar, 2011; Walters, Garii, & Walters, 2009) and teaching in international contexts (Cruikshank & Westbrook, 2013; DeVillar & Jiang, 2012; Rajdev, 2011). Despite the small percentage of U.S. candidates who complete their student teaching abroad (Cushner, 2012), studies of cohesive attempts to internationalize teacher education programs have remained relatively scarce. James and Davis (2010) documented early steps of this process at Kent State, the only university in the United States to date to have incorporated the IB into undergraduate teacher preparation. The qualitative self-study focused on teacher educators' understanding of, and commitment to, international-mindedness. Accounts of the internationalization of teacher education outside the United States include Ferguson-Patrick, Macqueen, and Reynolds' (2012) description of an Australian university's reform of a teacher education curriculum; Howe's (2013) case study of an undergraduate program in Japan, which prepares candidates for global citizenship education and includes support for gradual teacher induction; and Appleyard and McLean's (2011) evaluation of an optional professional development program in global citizenship education for teacher candidates in Canada.

Considering the established demand for school personnel to teach global awareness to today's students, there is an evident need for more attention to the development of internationally minded teacher education programs that support candidates in examining globalization and its domestic and international effects. Whereas studies have converged on the value of international experiences to prepare globally minded teachers (Alfaro & Quezada, 2010; Cushner, 2007; Mahon, 2007; Trilokekar & Kukar, 2011), scant literature explores the infusion of international education into domestic teacher preparation programs. This leaves two large gaps in the literature: (1) a broad focus on how teacher education can holistically approach international mindedness and global issues in and across a program of study, and (2) specific consideration of preparing preservice teacher candidates for the IB curriculum and instruction. Grounded in both the realities of a globalizing world and an increase in IB programs in P–12 settings (Karp, 2012), we recognize the role of teacher preparation in educating candidates in both local and global issues, but we go beyond the *why* to focus on the *how*, using our experiences and knowledge to redesign our program to prepare candidates for the IB in Chicago's urban classrooms and schools.

Program Design: The International Baccalaureate for Teachers

In this section, we describe the sequential process of redesigning our program to prepare candidates for IB principles and practice: (1) exploring the principles and practice of the IB, (2) connecting the IB and teacher education, (3) designing targeted and integrated experiences for teacher candidates, (4) forming partnerships and making strategic decisions, and (5) continuing to improve IB teacher preparation. In each subsection, we begin by briefly describing the broader redesign of the program and exploring the incorporation of the IB. We then make recommendations for teacher educators and other educational and policy stakeholders who aim to expand the global scope of teacher preparation and education.

Exploring the Principles and Practice of the International Baccalaureate

We took on the redesign of teacher education as an entire teacher preparation faculty, including our six program areas: bilingual, elementary, middle school, secondary, and special and early childhood special education. This decision was a response to two needs: (1) a core set of understandings, knowledge, skills, and dispositions of effective educators, and (2) a collaborative effort to prepare all candidates to work with all students. We engaged in three years of collaboration to design the program to prepare candidates for the contexts in which they would be teaching, including the IB.

To begin the integration of the IB into our program, we first needed to assess how central principles, practices, and curricula of the organization fit within our approach to teaching and learning. Our faculty had various levels of familiarity with the IB through their work in Chicago-area schools. To build background and common language, we first deepened our understanding by reading

more extensively about the IB, including its history, programmatic offerings, and educational approaches (IB, 2013a). Next, we formed a committee from the larger faculty to prioritize work related to the IB and the redesign of the program. The committee reviewed the application process and requirements, assessed the feasibility of aligning our plans for the redesign with the IB, and concluded that we should pursue IB recognition and offer IB certification to our candidates. Given the committee's positive recommendation, the teacher preparation faculty and our school of education's leadership supported the initiative. As a result, the authors took on the task of completing the application for IB Teacher Certification.

Recognizing the need to explore the various facets of the IB through school, university, and community lenses, we attended the IB Conference of the Americas (IB, 2012) to glean additional information on the application process. This annual conference attracts presenters and attendees from around the world, predominantly international education enthusiasts from the 31 countries in North, Central, and South America (IB, 2013b). The IB utilizes this regional conference to bring together stakeholders committed to the IB from a wide array of educational settings, including "public, private, magnet, charter, international, parochial, and secular" schools that "serve a broad and diverse range of students in urban, suburban, and rural communities" (IB, 2013b, p. 1). We attended sessions geared toward various stakeholders to familiarize ourselves with various university-based approaches. Speakers from Australia and Europe described their programs with universities across the Americas. Connecting with IB staff and other university-based attendees proved critically important to understanding better where our program addressed IB principles and practice and where we needed to revise and supplement our curriculum. We used the conference experience as a springboard for making and building upon connections between our redesigned program and the IB. This required an examination of our program's understandings and the associated knowledge, skills, and dispositions that supported each and an assessment of how these interfaced with the IB's pedagogical values. Table 2 provides an example.

Connecting the International Baccalaureate and Teacher Education. To practice what we teach (Ryan et al., 2014), we determined from the outset to utilize *Understanding by Design* (Wiggins & McTighe, 2005) when planning our program. We utilized the three stages of backward design: (1) setting goals for learning, (2) designing assessments to evaluate mastery, and (3) planning instruction to reach learning goals. After exploring the IB program and curriculum and making the commitment to prepare our candidates to teach in IB schools due to the contemporary context of urban education in Chicago (CPS, 2012, 2014), we began to align our program with the IB. This occurred at an ideal time in our redesign; having initiated the earlier stages of backward design during the prior year, we were still in the process of refining our understandings (see Table 3) and the related knowledge, skill, and disposition indicators (i.e., Stage 1) that would later support the

Table 2. Enduring Understanding and Corresponding IB Pedagogical Values

EU 7 Candidates will understand that effective educators hold high expectations and build on the assets of diverse students (including, but not limited to race, ethnicity, culture, language, SES, immigration status, exceptionality, ability, sexual orientation, gender, and gender identity).

Knowledge Indicator Candidates will	Skill Indicator Candidates will	Disposition Candidates commit to	Corresponding IB Pedagogical Values
generalize the value of student, family and community funds of knowledge (FoK) to student learning (EU7K1).	create and conduct FoK assessments (e.g., interviews, surveys, home visits) to understand the cultural, linguistic and familial practices and discern the unique backgrounds of students (EU7S1).	value the unique identities and backgrounds of all students, families and communities as essential assets in learning environments (D7).	<ul style="list-style-type: none"> • Promoting inter-cultural understanding and respect • Acknowledgement of diversity and multiple perspectives

design of assessment (i.e., Stage 2) and instruction (i.e., Stage 3) (Wiggins & McTighe, 2005). Due to the opportune timing, we did not need to force the IB into a fully designed and implemented program, but rather had the flexibility to mold the foundations of the program to ensure a sound fit with IB principles and practice.

We began by mapping the IB principles onto our original 10 understandings for the redesigned program, divided by the knowledge and skill indicators, and the 14 dispositions that served as the foundation of the program. Similar to the process previously used to demonstrate alignment with the Illinois Professional Teaching

Standards (ISBE, 2013c), we reviewed every indicator and noted with the acronym “IB” where the knowledge, skill, or disposition directly connected with the foundational principles of the IB. We found that the principles aligned closely with our original indicators such as the foci on social justice (EU 1), collaboration (EU 2), backward-designed instruction (EU 3), assessment (EU 4), policy and programs (EU 5), interdisciplinary content instruction (EU 6), support of diverse students (EU 7), language and literacy integration (EU 8), constructivist learning environments (EU 9), and connection between theory and practice (EU 10).

Table 3. Enduring Understandings

Candidates will understand that effective educators	
EU 1 <i>Social Justice</i>	Reflect professionalism in service of social justice by promoting human rights, reducing inequalities, and increasing the empowerment of vulnerable groups.
EU 2 <i>Collaboration</i>	Engage in reflection and collaboration among teachers, students, administrators, families, and communities to improve achievement for all students.
EU 3 <i>Instruction</i>	Use evidence-based practices to design instruction that aligns goals, objectives, assessments, and instructional strategies to meet individual needs of students.
EU 4 <i>Assessment</i>	Use data to drive instruction and assess teaching and learning effectiveness.
EU 5 <i>Policy</i>	Apply knowledge of policy and local, state, and national educational contexts to advocate with and for students and families.
EU 6 <i>Content</i>	Apply deep understanding of both content and pedagogy to provide developmentally appropriate instruction to all students.
EU 7 <i>Diversity</i>	Hold high expectations and build on the assets of diverse students, including, but not limited to culture, language, socioeconomic status, and exceptionalities.
EU 8 <i>Literacy</i>	Explicitly integrate the teaching of reading, writing, communication, and technology across content areas.
EU 9 <i>Environment</i>	Create and support safe and healthy learning environments for all students.
EU 10 <i>Theory</i>	Utilize information from theories and related research-based practices when making decisions and taking action in their professional practice.
EU 11 <i>Global</i>	Utilize global perspectives and international-mindedness, including awareness of the social, cultural, inter-cultural, and linguistic facets of student achievement.

Table 4. International Baccalaureate Indicators

Enduring Understanding 11	
<i>Candidates will understand that effective educators maintain and utilize global perspectives and international mindedness when engaging in teaching, learning, and leading, including the awareness and application of the social, cultural, inter-cultural, and linguistic facets of student achievement.</i>	
Knowledge Indicators	Skill Indicators
Explain the principles, tenets, and key areas of International Baccalaureate (IB) education, curriculum, and different programs (i.e., PYP, MYP, and DP).	Determine best practices to stay abreast of current IB innovations and connect with other schools and educators in the broader IB network.
Describe how global issues can be infused into instructional practice to inspire intercultural awareness and international mindedness.	Plan instruction to support students' structured inquiry into global issues to inspire inter-cultural awareness and international mindedness.
Explain the role and importance of students' native language in learning and instruction.	Incorporate and value students' native language into classroom practice to promote balanced bilingualism.
Describe the multiple facets of student achievement, including social, cultural, inter-cultural, and linguistic.	Design authentic assessments to measure the multiple facets of student achievement, including social, cultural, inter-cultural, and linguistic.
Explain the importance of students' self-reflection and self-assessment in the various areas of student achievement to support identity exploration.	Involve students in self-reflection and self-assessment in the various areas of student achievement to support identity exploration.
Describe how instruction utilizes transdisciplinary units to incorporate inquiry into multiple perspectives, diverse cultures, and global issues.	Collaborate to build and sustain classroom and school environments that incorporate and value cultural, inter-cultural, linguistic, and global diversity and issues.
Identify and describe multiple ways of knowing within a variety of disciplines.	Engage in different ways of knowing within or across various disciplines.
Acknowledge the leadership role that teachers play in local, national, and international educational communities.	Engage with the local (e.g., school-based), national (e.g., professional organization), and international (e.g., IB network) communities to lead instructional efforts.

In addition to demonstrating the alignment of existing enduring understandings, knowledge and skill indicators, and dispositions, the mapping process also allowed us to see holes in our original draft of the Stage 1 programmatic foundations. First, we recognized the need to add indicators to the original enduring understandings; for example, even though we constantly utilize and incorporate authentic assessments in teaching and learning, we failed to explicitly articulate this fact in the indicators and needed to add and edit with that central IB principle in mind. Second, in addition to revising individual indicators within existing enduring understandings, we found the need to target specific tenets of the IB in a new enduring understanding and drafted another (EU 11; see Table 4). Third, we drafted two additional dispositions, which are central to the development of efficacious teachers (Zumwalt & Craig, 2005). Similar to the indicators, we realized that even though we felt strongly about curiosity, creativity, and lifelong learning and leading, those ideals were not manifested in the 14 dispositions guiding the program design. By mapping and revising the program foundations based on the IB, we ensured targeted and integrated preparation across eight sequences of instructional modules.

Designing Targeted and Integrated Experiences for Teacher Candidates. With the foundations in place, including the enduring understandings and related knowledge, skills (Wiggins &

McTighe, 2005), and dispositions, we put the principles into practice by replacing traditional semester-based courses with a new system of instructional modules and sequences. Aiming to reduce the influence of our professional instincts to operate within the confines of the institutional requirements of the university (e.g., course credit hours) and common practices (e.g., block, clinical hours), we decided to move away from these common constructs to utilize new discourses and approaches. We developed *modules* ranging from three to eight weeks in length that were designed with preservice professional development in mind, with candidates engaged in teaching and learning in school sites. Strategically ordered across a four-year undergraduate program, the modules came together to comprise a total of eight *sequences*, which corresponded to university semesters.

Designed around professional performance assessments (Darling-Hammond, Newton, & Wei, 2012; Darling-Hammond & Snyder, 2000), the clinically based program is embedded in schools and communities across the sequences and modules. Candidates complete a series of formative assessments and a summative assessment in each module within a sequence, as well as a summative assessment that ties together learning from the entire sequence. In addition, we assess candidates on professional dispositions in each module and sequence. Both university faculty and cooperating teacher educators from the partner schools provide

candidates with ongoing feedback as they move through the program, offering opportunities to improve practice in real time. All candidates must take and pass the Teaching Performance Assessment (edTPA) beginning in the fall semester of 2015 to secure licensure; successful completion of this examination is a requirement in the one-year student teaching internship phase. The complete teacher education curriculum can be viewed on http://www.luc.edu/education/programs/bsed_%20program-phases.shtml. In addition to education coursework, all candidates take a liberal arts core curriculum (<http://www.luc.edu/core/index.shtml>), and all elementary education majors specialize in a content area, while secondary education majors pursue dual degrees in education and their disciplinary content area.

Within instructional sequences and corresponding modules in the teacher education curriculum, we aimed for candidates to engage in teaching and learning about and within IB settings. To ensure candidates' deep understanding related to IB principles and practice, we utilized a *targeted and integrated approach* to ensure specific knowledge of IB practice, both targeted and general knowledge of IB principles across all practice by integrating IB principles throughout the entire program. After mapping the IB with all of the knowledge, skill, and disposition indicators that guided the design of our entire program, backward design supported the integration of the IB throughout the program. The third and sixth sequences served as the locales to target the IB-specific practice (see Tables 5 and 6). University faculty designed these modules with the assistance of teachers and administrators from our partner schools, a collaboration that proved invaluable as we developed

the curriculum, sought feedback, and revised and refined each sequence and its associated modules.

In Sequence 3, focused on *Policy and Practice in Urban Classrooms*, candidates explore how macro-level policies are manifest in teachers' and students' practice in urban classrooms; the sequence begins with the macro-lens of educational policy and ends with the micro-lens of students in classrooms. In the first module, entitled *Educational Policy for Diverse Students*, candidates specifically explore the IB as a policy and program, including its history, curriculum, and enactment into classroom practice in IB World Schools; by participating in *Policy in Practice Rounds*, candidates learn about the IB, use an observational protocol to observe the IB approach in practice in urban public and private schools, and then debrief the policies and programs in classroom practice. In the second module, entitled *Individualized Assessment and Instruction for Diverse Students*, candidates use the IB learner profile (IB, 2008) and authentic assessments (Herrera, 2010) to appreciate, discern, and respond to the individual needs of students in order to plan instruction and support their social, emotional, behavioral, cultural, and linguistic development and academic achievement (Heineke et al., 2012). As the modules shift in focus from broader educational policy to urban classroom practice, the experiences emphasize the connection between all layers, processes, and participants in the international, national, and local educational systems.

To begin Sequence 6, *Integrating Content, Cultures, and Communities*, candidates engage in a four-week module entitled *Teaching and Learning in an Area of Specialization*. During this integrated IB module, candidates focus on disciplinary teaching and learn curriculum

Table 5. Targeted International Baccalaureate Teacher Preparation: Sequence 3

Sequence Title	Policy and Practice in Urban Classrooms
Theories Examined	Sociocultural Theory of Policy Appropriation; Cultural, Linguistic, and Social Capital in Classrooms; Funds of Knowledge; Constructivism; First and Second Language Learning Theories
First Module (4 weeks)	Educational Policy for Diverse Students
First Module Assessment	Policy Case Study – Candidates examine an educational policy's historical and contemporary impact on education; how it affects their school site; analyze various layers of local, national and international forces; identify and reflect upon its social justice issues; and identify the role of the teacher in the advocacy of students and/or teachers.
First Module Experiences	Explore educational policies and the role of policy in school and classroom practice. Rotate through classrooms to investigate the enactment of policies in practice (e.g., International Baccalaureate, English Language Learning/bilingual, special education, standards, etc.)
Second Module (8 weeks)	Individualized Assessment and Instruction for Diverse Students
Second Module Assessment	Student Case Study – Candidates design and select various assessments to collect data about a student and the family, community and classroom, then use the data to plan and implement targeted individual or small-group instructional practices to meet the social, emotional, behavioral, cultural, linguistic and academic needs of the student.
Second Module Experiences	Explore the IB learner profile and the multiple facets of student background and development. Grounded in related theories and principles, apply knowledge through assessment and instruction with an individual student (bilingual student, struggling reader or student with special needs).
Sequence Summative Assessment	Teacher Study – Candidates bring together the case studies done in the modules in the sequence to demonstrate the connection between the macro- and micro-layers of the educational institution and classroom practice. Candidates need to bring together the broad findings from each study to explore the central role of the teacher in educational decision-making.

Table 6. Targeted International Baccalaureate Teacher Preparation: Sequence 6

Sequence Title	Integrating Content, Cultures, and Communities
Theories Examined	Constructivism; Funds of Knowledge; Culturally Responsive Pedagogy; Backward Design; Universal Design for Learning
First Module (4 weeks)	Teaching and Learning in an Area of Specialization
First Module Assessment	Content Area Unit Plan – Develop and co-teach a unit using Understanding by Design (UbD). Candidates include principles of Universal Design for Learning (UDL) to differentiate instruction and assessment based on formative assessment data.
First Module Experiences	Candidates learn core principles of UbD and UDL. Interview teachers and students for effective ways of teaching and learning with technology and other strategies to differentiate and make the curriculum accessible to all students. Develop and co-teach a unit with the cooperating teacher and peers.
Second Module (8 weeks)	Teaching and Learning with a Global Framework
Second Module Assessment	Interdisciplinary Unit Plan – Candidates develop a unit plan with interdisciplinary connections focused on a local issue of equity with international connections. The unit needs to address the criteria used to plan IB curriculum units (e.g., the MYP unit planner). Candidates engage in a self-assessment of the unit using the IB and social justice education principles.
Second Module Experiences	Candidates are embedded in a MYP or DP classroom. Candidates co-plan and teach a three-week unit with an IB cooperating teacher educator. Candidates analyze their unit, samples of student work, and further research to develop lessons learned from teaching within a global framework.
Sequence Summative Assessment	Course-level Learning Plan – Candidates design a year-long curriculum plan within a particular content area. The plan includes a description of the content and skill focus, required materials including text and technology resources, classroom expectations, and a comprehensive assessment plan.

development through backward design, using the *Understanding by Design* framework (Wiggins & McTighe, 2005). To close Sequence 6, candidates enroll in a targeted eight-week module, *Teaching and Learning with a Global Framework*, focused on teaching in an IB World School. Candidates work closely with an experienced IB teacher in a PYP, MYP, or DP setting to co-plan and co-teach a transdisciplinary unit (in the PYP) or interdisciplinary unit (in the MYP and DP). The unit includes a structured inquiry project with local relevance and international connections focused on an issue of equity. This assessment builds on our program's emphasis on social justice (EU 1; see Table 3) and the IB's emphasis on international-mindedness, which includes three core attributes from the IB Learner Profile: being (1) a competent communicator, (2) open-minded, and (3) knowledgeable (Singh & Qi, 2013, p. viii). International-mindedness also promotes multilingualism, intercultural understanding, and global engagement (p. viii). The latter two elements are the focus of the module assessment outlined above, in which teachers and students act on global issues that affect local communities (IB, 2014b). During this experience, candidates develop deep understanding of the IB's key characteristic of international-mindedness by developing a curriculum that assists students in developing this same quality.

Additionally, candidates learn about the IB as an organization to help them understand the IB teachers in their specific locale and across the nation and world. The summative assessment for Sequence 6 is a yearlong course plan (Wiggins & McTighe, 2005), which requires candidates to apply knowledge and skills from across the sequence. In this assessment, candidates must demonstrate international-mindedness in curricular artifacts. Through the instructional units and yearlong plans, we address the need for teachers to integrate global issues in critical and justice-oriented

ways (Davies, Harber, & Yamashita, 2005; IB, 2008; Yamashita, 2006).

Forming Partnerships and Making Strategic Decisions. Seeking to embed our teacher preparation in schools and communities (AACTE, 2010; NCATE, 2010; Zeichner, 2006), we enhanced our redesign efforts by deepening and expanding our school partnerships in and around Chicago. In addition, we moved a step beyond situating teacher education *in* schools and communities by partnering *with* stakeholders in school and community settings (Ryan et. al., 2014), including instructional and administrative leaders in public, Catholic, and charter schools, community organizations, neighborhood groups, and cultural institutions. We made a strategic and purposeful decision to break away from the traditional model of teacher preparation, where schools of education contact local schools and ask them to *take* a teacher candidate or candidates for observation or student teaching. Instead, as we redesigned our program, our partners provided integral feedback through the backward design process to ensure mutual benefit for all partners (Kruger, Davies, Eckersley, Newell, & Cherednichenko, 2009). In bringing our partners to the table from the start, we gained a good sense of what our local communities and constituents valued about our existing program and what we needed to improve. The local knowledge strengthened the overall scope and sequence of our program, while simultaneously strengthening our partners' understanding of our program and giving them a voice.

Our decision to target and integrate the IB into the field-based apprenticeship program (Rogoff, 1994) required us to prioritize building new relationships and partnerships with IB World Schools. We had existing partnerships with a number of schools that had IB approval or were in the process of seeking approval due

to the CPS and Archdiocesan initiatives to globalize teaching and learning (CPS, 2012; White, 2012). Nevertheless, in order to have the capacity to provide the targeted field-based experiences that would qualify candidates for the IB Teacher Certification, we needed more school sites. As some IB World Schools learned about our IB-integrated program, they approached us to form partnerships, recognizing the importance of collaboration between schools and universities. Demonstrating the mutual benefit for both partners (Kruger et al., 2009), the common focus on IB forged new partnerships and strengthened some that had been in place for many years.

After an honest assessment of the capacity provided by both new and existing partnerships at IB World Schools, we recognized that not all teacher candidates could receive the targeted IB preparation. With a considerable number of middle and high schools offering DP and MYP programs and a limited number of elementary schools offering PYP, we determined that there was ample capacity to support the IB in our middle and secondary licensure programs. However, we would offer PYP certification only for bilingual/bicultural elementary education candidates, utilizing one specific partnership at an urban elementary school that offers the PYP program and transitional bilingual programs across grade levels. Other elementary candidates interested in the IB have the option to move to middle school or pursue our bilingual/bicultural elementary licensure program. We made these difficult but strategic decisions about who will pursue the IB Teacher Certification based on our ability to provide appropriate field-based experiences in IB partner schools.

In addition to building and solidifying partnerships with IB World Schools and engaging teachers and school leaders in the iterative review process of the design and implementation of our program, we collaboratively engaged in professional development sessions with faculties from IB World Schools to improve our own understanding, knowledge, and skills related to IB teaching and learning. Through this professional development at one elementary school (i.e., PYP training) and one elementary and high school collaboration (i.e., MYP training), we simultaneously enriched our understanding of the IB and intensified our relationships with our school partners. Facilitated by staff from IB Americas, the sessions served as powerful learning experiences where elementary, secondary, and university faculty worked side-by-side to learn the fundamental IB principles and applications in classrooms and schools.

Continuing to Improve International Baccalaureate Teacher Preparation. After exploring the principles and practices of the organization, setting IB-specific goals for candidates' learning and development, designing sequences and modules to target and integrate the IB content, and developing partnerships with IB World Schools to situate the field-based teacher preparation, we utilized the sum of these experiences when completing the application to gain approval for offering the IB Teacher Certification. Before, during, and after the processes involved in the redesign of our program and IB integration and application, we made a concerted

effort to seek feedback from those with considerable experience with the IB. We turned to and engaged with our school and district partners in the IB network throughout the application process, which allowed for iterative and invaluable feedback from multiple perspectives. Our professional reading and attendance at conferences was helpful, but interaction with colleagues in our partner schools and districts proved particularly useful in preparing the application and for the recognition site visit from IB staff—the final step in the process of integrating the IB Teacher Certification into our program.

Three representatives from the IB conducted the site visit. The group was comprised of the manager of teacher education services, a lead member of IB's professional development office, and a retired head of school from an IB World School. The agenda for the visit consisted of a presentation by faculty who described our program and the ways we met the learning outcomes of the IB Teacher Certificate. Thirteen members from various program areas of our teacher preparation faculty presented our program design and demonstrated the targeted and integrated IB content across the program and within specific sequences and modules. A highlight of the visit was a collaborative session with our IB school partners, during which the IB team met administrators and teachers from public and private IB World Schools who agreed to host IB-specific modules and assisted in the development of these experiences. On the second day of the visit, the IB team asked questions to clarify their understandings in preparation for writing the draft report of their decision. At the end of the day, the IB team brought our team together and delivered their report. We received unconditional recognition from the IB and a host of commendations, but—perhaps more importantly—we were also given a list of constructive recommendations. The team commended us for having a strong pedagogical program with a substantial focus on diversity related to local and national issues, but pushed us to make more international connections. We continue to work on this aspect as we implement the program. The other recommendations were more procedural in nature. We found the conversation to be of great value and in keeping with the iterative process we embarked on by choosing to integrate the IB into our program. Beyond continuous improvement, adopting the IB offers opportunities for us as teacher educators and for our candidates to reflect and grow in an ever-changing world of education at the local, national, and international levels. The collegiality of the IB team members, and their helpful advice and recommendations, mirrored our experience throughout the process of working with the IB and IB schools.

PREPARING GLOBALLY MINDED TEACHERS FOR A CHANGING WORLD

Implications

The growing number of public and private IB World Schools in the United States (Culross & Tarver, 2011; Tarc & Beatty, 2012; White, 2012) signals the importance of global and international education in our contemporary society (Boix-Mansilla & Jackson, 2011;

Council of Chief State School Officers & Asia Society, 2008; Longview Foundation, 2008; Van Roekel, 2010). However, there is no parallel movement on the same scale in teacher education (Longview Foundation, 2008). In fact, one can argue that U.S. teacher educators are slow to act on this initiative. With only one other university currently offering the IB Teacher Certificate at the undergraduate level (James & Davis, 2010) at this time, ample work remains to be done to adequately prepare teacher candidates to meet the needs of all students in IB World Schools across the United States. Integrating the IB into a teacher education program requires a great deal of forethought and collaboration between the college faculty and school partners, but there are a myriad of benefits due to the strength of the content and the process of recognition. As a faculty, we gained a great deal from aligning our curriculum in a way that enhanced our redesigned teacher preparation program and from receiving feedback through the recognition process. Additionally, the IB as an organization expressed the desire to learn from our unique program, specifically the preparation of teachers for diverse learners in IB settings. By partnering with the IB organization moving forward, we have the opportunity to make a considerable contribution to the understanding of the effectiveness of the IB for all our candidates, cooperating teachers, and their students.

As more schools across the nation turn to IB programs to prepare students for the global scene, we encourage teacher education programs to consider incorporating the IB to prepare internationally minded teachers who are well suited to teach the next generation in a globalized world (Zhao, 2010). To close, we offer several recommendations to those interested in pursuing this approach.

Recommendations

First, we recommend that the teacher education faculty collaboratively commit to gaining a deep understanding of the IB, including its foundational principles, instructional programs, and guiding curriculum. The organization has been in existence for 45 years on multiple continents, spanning the grade-level continuum from pre-school to high school (IB, 2013a), and we gained substantial information about the IB approach to teaching and learning from those who had partnered with IB World Schools for a number of years. We found that specific texts (Boix-Mansilla & Jackson, 2011; Roberts, 2009), briefs (Longview Foundation, 2008; Van Roekel, 2010), and web resources (IB, 2008, 2013a, 2013b) supported our work as we sought to learn everything we could about the organization in order to embed the IB in a deep and meaningful way.

Second, after investigating the IB approach to teaching and learning and determining the suitability for the teacher education program, we recommend examining the capacity of the institution and reviewing the programs that would be affected. While the IB's constructivist foundational principles remain the same across programs (IB, 2013a), there are significant differences between the PYP, MYP, and DP programs that require different sets of knowledge, skills, and experiences for teacher educators and candidates (IB, 2013a). Additionally, institutions of higher education seeking

approval for the IB Teacher Certificate must show how candidates are prepared for the individual programs within their grade level. By targeting the specific IB programs in elementary, middle, and high school settings in Sequence 6, we received approval to offer the full continuum of IB programs, including PYP, MYP, and DP. However, these programs will be limited to particular groups of students due to the smaller number of elementary schools that offer the PYP. As a result, we will not be able to provide all students in all teacher education programs the opportunity to receive the IB Teacher Certificate.

Third, we recommend building mutually beneficial partnerships (Kruger et al., 2009) with IB World Schools and working closely with these partners to develop an IB-infused teacher preparation program. In our design, we work with IB program coordinators and teachers to support candidates in developing units they co-teach with cooperating teachers and colleagues. This model strengthens the curriculum development and leadership skills of IB teachers as it supports the development of preservice teachers. Choosing to offer our program in collaboration with partner schools in our region has strengthened our program considerably. Having a strong network of IB schools and a considerable number of placements for our students made our pursuit of IB recognition a realistic goal. We suggest making the establishment of such a network a priority.

Fourth, we encourage teacher education faculty to draw on multiple stakeholders to support the in-depth and extensive process of IB recognition to offer the IB Teacher Certification. Due to the alignment of the IB with our university's stated initiative for internationalization and the overall institutional support for the redesign of our program, we had ample backing from the offices of the university president and provost, from the dean of our college, and from our teacher education faculty and school partners. This was critical to successfully achieving recognition from the IB. We encourage bringing together all key internal and external stakeholders early in the process.

Finally, we suggest that teacher education faculty document the process. In this article, we used our thorough documentation and self-study data to describe our multiple steps to design the IB Teacher Certification. As we move forward, we plan to continue to document this work in order to study the implementation of the integration of the IB in our program. We plan to report our findings to assist others as they consider their own approaches to the integration of international and global education in their teacher education programs.

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Ann Marie Ryan is an associate professor in the Teaching and Learning Program Area at Loyola University Chicago. Professor Ryan can be reached at aryan3@luc.edu.

Amy Heineke is an assistant professor in the Teaching and Learning Program Area at Loyola University Chicago. Professor Heineke can be reached at aheineke@luc.edu.

Caleb Steindam is a doctoral student in the Curriculum and Instruction Program in the Teaching and Learning Program Area at Loyola University Chicago. Mr. Steindam can be reached at csteindam@luc.edu.